ABSTRACT OF THE DISCLOSURE

This invention provides an ultrasonic imaging system that implements imaging by distinguishing sharply and definitely the echo components generated by scattering in a microbubble contrast medium, from the tissue harmonic components generated by nonlinear propagation of a transmitted pulse. This ultrasonic imaging system, constructed to transmit/receive ultrasonic pulses to/from a living body and form a contrast image of the inside of the living body by using the contrast-imaging microbubbles, repeats the transmitting/receiving operations four times in all, under the same transmitting/receiving focus conditions at different phase angles [(a) = 0°, (b) = 120°, (c) = -120°, (d) = 180°] of the carrier of a transmitted pulse wave including a common envelope signal, sums up three time-series receive echo signals associated with (a), (b), (c), forms the contrast image, sums up two time-series receive echo signals associated with (a), (d), forms an image of the living body having a nonlinear pulse propagation property, and makes a superimposed display of the two kinds of images.